DRAFT
Excerpt from Summary of Joint Meeting of
Public Safety Communications Advisory Commission (PSCC)
Statewide Interoperability Executive Committee (SIEC)
November 20, 2008

DEMONSTRATION PROJECT

PSCC Chairman Chris Cummiskey introduced discussion of the Demonstration Project by providing some history relating to the project, indicating it was important to have a conversation regarding the original plans, outcomes, lessons learned and next steps for the project, and that he was hoping for a candid, unbridled conversation on this topic.

Participants were asked to review the reference materials that were provided *(Handout: DPS Project Overview and Recommendation for Further Action Memorandum from DPS to GITA regarding Demonstration Project dated September 2, 2008; Presentation by Mr. Bill Phillips, City of Phoenix)*, and DPS Executive Officer Felix was asked to begin the discussion.

DPS Input: Executive Officer Felix explained that one aspect of the Demonstration Project was to test a technology/particular type of interconnectivity between two systems, to show that a user could travel/roam from Phoenix into Yuma and be able to maintain interoperability with a dispatcher or with their home system, in a manner similar to the concept for a statewide system.

If that test worked, the plan was then to deploy radios programmed onto those systems, and demonstrate interoperability via a field exercise. With the transition of PSCC to GITA and the budgetary situation in the State, DPS felt that moving forward with further deployment of the Demonstration Project was ill-advised at this time. They feel that the project needs to be re-evaluated in light of what had been accomplished to date, what concepts had been tested and proven, and then to determine next steps.

Executive Officer Felix indicated that the best approach to enhancing interoperability with the funding that was available would need to be addressed going forward.   He hoped that everyone would gain a common understanding regarding this project out of the discussion today.

City of Phoenix Input: After noting that a representative from Yuma was not able to attend, Chairman Cummiskey asked Commissioner Tracy Montgomery from City of Phoenix PD to also speak on this subject. Commissioner Montgomery recognized Executive Officer Felix's comments regarding the budget situation, and noted that everyone is short on funds, resources and manpower at this time. She indicated that Phoenix made a significant commitment to supporting the Demonstration Project, and while informal, there were expectations in regard to infrastructure and radios, and the other aspects of technical support that would imply.

As Phoenix builds out their regional partner group, it was felt the situation would quickly reach a point where they would be unable to support all these activities at once, and really wanted a determination from this group as to next steps from a planning perspective.

In speaking with Yuma, Commissioner Montgomery indicated Mr. Greg Wilkinson was also not in a position to provide technical support to a future programming project.

But given that it has value, the next question would be how to support it, financially and technically, and without imposing on those who would be willing to devote resources to furthering this effort.

Commissioner Montgomery then asked Mr. Bill Phillips from the City of Phoenix ITS and Mr. Jesse Cooper as Phoenix Police Department's 800 MHz radio manager to begin their presentation on the Demonstration Project.

City of Phoenix Presentation: Mr. Phillips began his presentation by providing some additional background on the objectives for the project, and identified the opportunities that had been approved by the PSCC, their projected costs, and the infrastructure that has been put in place as follows:

- The 700 MHz radios were deployed for the Super Bowl, and as such, that objective had been partially carried out.
- The 700 MHz site at White Tanks and connectivity back to South Mountain/DPS was completed, in addition to adding the 700 MHz site on the Yuma system at Oatman.
- Motorola provided their prototype Inter RF Subsystem Interface (ISSI), which was installed at the DPS Encanto facility.
- The sites at White Tanks and Oatman were then added to the Yuma and Phoenix systems, and connected by digital microwave to support the ISSI link, and to provide an additional 90 miles of coverage where roaming could occur.

A kick off test was held on June 30th *(Note: correction from slide)* with participation by PSCC, DPS, YRCS, RWC and Motorola. Primary objectives were to exercise the gateway as much as possible, to test for audio quality, including the scenario called 'collide and divide', with a focus on the ISSI. From their vehicles, participants were to experience roaming from one system to another, across systems' boundaries, and to change talk groups or to remain in coverage and talk back to their dispatchers, as if they never left the area.

The following bullets summarize the outcomes from the Demonstration Project, as presented by Mr. Phillips, including feedback from participants, and with additional comment by Mr. Cooper:

- Roaming is possible when systems are properly configured, but is not automatic at this time.
- The timing issue associated with 'collide and divide' has yet to be worked out in this type of configuration.

- The ISSI worked well; it was a great product; people were impressed with the quality of the audio and surprised that the ISSI did not introduce any noticeable delays under stereo conditions.
- The product needs to have better mobility management; there is a lot of overhead associated with system administration and radio programming.
- When using the Push to Talk (PTT) feature, IDs/aliases do not come across the network at this time, impacting emergency operations.
- The Emergency button works (transmission occurs) but the radio ID does not display so it is impossible to find out who is in trouble.
- The product needs to be deployable in much easier fashion.
- The product is not something that should be implemented in close proximity areas but has a lot of applicability for operations and interoperability over wide areas.
- The product could be enhanced by having an interoperability system ID that would be recognized by both systems vs. having two different system IDs.
- There was agreement that this is not a substitute for a shared system.

In summary, Mr. Phillips advised the group that the Demonstration Project was considered to have merit, but other questions would need to be answered from a go-forward perspective, including i.e. who would lead the project, and what to do about the ISSI prototype that needs to go back to Motorola. Also not addressed were SOPs and exercises to test the SOPs as well as how the ISSI performs in a real-world situation, and whether this was something that could be used as a system enhancement or a system of systems approach.

Mr. Cooper went on to clarify that the focus of this project was to help DPS and PSCC to move forward with the decision regarding if/how to build out a State network statewide. Without a decision on approach from an operability perspective and a clearer mandate, he indicated there was not much more value to providing continued support, and if the decision is that the project is complete, then the equipment should be dismantled and those supporting it should move on.

Chairman Cummiskey and Ms. Meyerson both thanked Commissioner Montgomery and her team for putting the presentation together.

Facilitated Discussion

Dr. Hendry was asked to facilitate the discussion around the questions and decision points that the City of Phoenix presentation encapsulated.

Dr. Hendry began the facilitated portion of the discussion by asking for feedback from the group regarding the outcomes of the Demonstration Project, successes, lessons learned, and comments regarding how it would inform the long-term decision.

City of Phoenix Comments: Mr. Cooper stated that he viewed the project as a demonstration and a proof of concept regarding whether the ISSI was a viable solution, as PSCC decides between overbuilding or leveraging existing systems. Mr. Cooper also pointed out that the ISSI standards have not been completed at the Project 25 level, and no real users were put onto the system.

It was felt that the project could have evolved into a pilot if the next phase of putting radios into DPS vehicles had started. He indicated that while it was nice to have connectivity between Phoenix and Yuma users, the intent was more to support the DPS function with this approach. It was anticipated that some of the issues that had been discovered could have been worked through, but a clear direction forward would be needed first.

In response to a question from Dr. Hendry, Mr. Cooper confirmed the concept proven by this project was to connect two Motorola systems.

DPS Comments: Dr. Hendry then asked DPS to address the group regarding how the project had been of benefit to them.

Mr. Rogers first clarified that at the time the Demonstration Project was initiated, the PSCC was under DPS, but essentially worked for the Commission in developing this program. As the Wireless Systems Bureau Manager, he also had some questions regarding how the project would help DPS from an operability perspective, especially given the coverage area, while recognizing that interoperability was viable with radios alone.

Mr. Rogers advised that the DPS UHF component (which is used by DPS currently for operability) was also not part of the demonstration. Mr. Phillips confirmed that the configuration tested was only 700 MHz. Mr. Rogers then went on to explain that, even though the operability component would not satisfy DPS' needs, and that DPS was faced with budget and manpower challenges, his office did support the PSCC support office by providing space for test equipment and connectivity. He now needs that space back. He noted that while Yuma has taken back their equipment, the Phoenix equipment and the ISSI remains and may still function, but does not need to be housed in his office.

City of Phoenix Comments: Dr. Hendry questioned who currently owned the ISSI solution. Mr. Phillips responded that the ISSI still belonged to Motorola, that it was a beta product, and also proprietary. As such, it was capable of connecting only Motorola systems right now, although Motorola has given their commitment that it will be fully P25 compliant when that standard comes forward.

Mr. Phillips also confirmed for Dr. Hendry that should the decision be made to move forward with the ISSI-type solution, it would not be utilizing the equipment that is currently installed, we would need to wait for a future box to be available.

DPS Comments: Mr. Rogers agreed that the ISSI equipment was purely research-based at this time, and that from an operability perspective, DPS cannot run mission-critical traffic through this equipment, as it would be a violation of the ISSI contract.

Dr. Hendry asked about the prospect of putting 800 MHz radios into DPS vehicles, in response to which Mr. Rogers described the success that has been realized by putting the same band radios into officers' hands for pre-planned events such as the Super Bowl. From an interoperability perspective, he felt as though the same thing could be accomplished by putting the same technology into DPS vehicles and programming in the 16 talk groups that the City of Phoenix

established for cross-agency activity. The issues with that approach were again funding, and which cars would get the radios.

Dr. Hendry also pointed out the potential for 2-3 radios per car, which might not be a good operational solution, even if it were a technological solution.

Mr. Rogers responded that he would like to see how it worked just to map the DPS UHF system to a City of Phoenix talk group on one radio.

City of Phoenix Comments: Mr. Cooper wanted to make it very clear that this was a PSCC-driven project and not a Yuma, Phoenix or DPS led project. While Phoenix was not advocating one way or the other, the 3 entities involved needed direction from the PSCC in regards to what would be done with the project. While he felt that participants would not be unhappy to free up the space and resources that were involved, the primary objective was to determine direction from PSCC in regard to the project.

Phoenix Fire Department Comments: Commissioner Mike Worrell stated that this technology provided dispatch with the ability to maintain communications with a unit during transit to a location, as well as interoperate with the agency coordinating a statewide response at that location, and in that respect, the demonstration was positive.

Sedona Fire Comments: Commissioner Wills responded that the ability to maintain communications during transit was an additional utility of the AIRS network as it exists today. After confirming with Mr. Cooper that the White Tanks site would probably continue to be used as part of a P6 type site initiative, and that Yuma would likely leave the Oatman site in place, Commissioner Wills summarized the benefits that had been realized from the project as: what had been learned about the ISSI, the enhancements to the RWC and YRCS and another leg of digital microwave connectivity down to Yuma County that was put in place.

DPS Comments: Dr. Hendry asked about the benefits received for the monetary investment that was made in the project. After clarifying a concern raised by La Paz County, Mr. Rogers confirmed that DPS would continue to benefit from the digital microwave link to Yuma, and that it was his understanding that the Phoenix and Yuma stations would remain in place, hopefully in a building that the Wireless Systems Bureau (WSB) at DPS manages, which would add to the interoperability component.

While raising concerns regarding the sustainability of the approach without continued significant funding for a new State system, Executive Officer Felix responded that it would have been nice to have extended the demonstration to include programming and adding radios to more vehicles. But from his perspective, it was not critical to proving the concept, which can now be considered a potential technology to be used once planning and actual design and funding is available.

City of Phoenix Comments: In response to a question from Dr. Hendry in regard to whether any funding was left on the table, Mr. Cooper reiterated that the objectives of the project had been met, the concept proven, and that the assets that had been procured would continue to be used by those who could benefit from them. He also expressed agreement with Mr. Rogers that while

this was not an operability solution for DPS, if it should become part of a larger solution in the future, it will be revisited, but right now, a conclusion was being sought for the project.

DPS Comments: SIEC Member Scott Tillman stated that, as an observer of the drive test, he felt the technology did provide interoperability and would be of use to a vehicle outside of their service area needing to maintain contact with their own dispatch or other units in the group they were working with. In that sense, the ISSI proved to be beneficial in showing real potential for interoperability, even though as currently configured, it does not support daily operational needs.

Mr. Rogers added that GITA-PSIC might want to ask Mr. Greg Wilkinson to update the Commission regarding current discussions that Yuma is having with Motorola regarding use of the ISSI to connect with Riverside County, although he went on to clarify that would be a separate project.

Chairman Comments: **After no additional comments were offered, Chairman Cummiskey summarized the discussion, noting that no formal action would be taken in this meeting.**

From his perspective, it sounded as though the project had value, did demonstrate additional capabilities, and also built out areas that previously did not have coverage. He had also heard that the technology itself is promising and that as future iterations materialize, there is value in looking at how what had been learned can be utilized in both operability and interoperability settings. He then asked the group to amend or edit his understanding of the principal players' belief in regard to the Demonstration Project - that it had concluded as a project and that the Commission itself should explore what next steps might be viable going forward.

Sedona Fire Comments: In response, Commissioner Wills expressed support for the Chairman's statements, that the project had run its course, has potential advantage in the future and is complete.

No other comments were offered.

__The session was adjourned for a lunch break with__
__a request to the Commissioners to return for the afternoon session.__